



# **Incorporating Sustainability in Workplace Design**

**EPA Region 9 Space Redesign Project**



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**March 2014**

# Overview



1. Project Goals
2. Sustainability in Design
3. Employee Engagement
4. Design Concepts
5. Lessons Learned



# Project Goals



- Reduce leased space footprint by up to 20%
- Create space that represents EPA's mission and incorporates LEED & sustainable design
- Use project to message procurement shift towards sustainability
- Adopt new technologies and space design concepts
- Expand meeting & collaboration spaces
- Incorporate best practices in mobile workplace design



# Sustainability in Design

# Sustainability in Procurements



Procurement	Certification	EPA SF Project	Benefits
Building (Operations)	LEED EBOM EnergyStar	Platinum 99%	Energy & Water Reduction
Building (Interior)	LEED CI	Platinum	Occupant comfort
Finishes	Greenguard		No/low VOCs Recycled Content No formaldehyde
Appliances	EnergyStar	EnergyStar High Efficiency	Energy & Water Reduction
IT Technology	EnergyStar EPEAT	Data Center Air Side Economizer	Energy Reduction Cradle to Grave
Furniture	BIFMA	Level 3	No PVCs Recycled Content Cradle to Grave
Demountable Walls	BIFMA	Level 2	
HD Shelving	BIFMA		Recycled Content No VOCs



# Less Paper Requires Less Space



- Removing paper from floors allows more light and views, and improves circulation (remove lektriers)
- “Paperless” is not achievable, “Less Paper” is
  - Huge cultural change involved
- Leverage federal experts – NARA
- Purge, purge, purge!
- Consolidate reference and historical files in records center
- Archive the past, “scan forward” the future

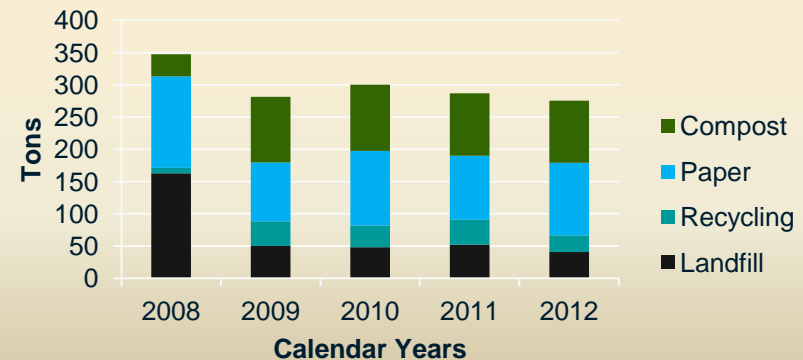


# Zero Waste Saves \$\$

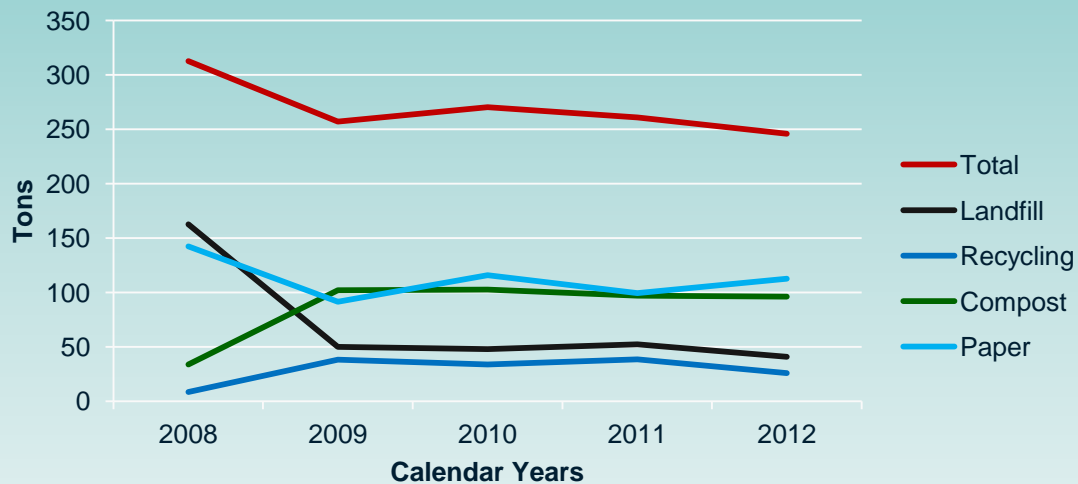


- Waste Generation Trending Down
- Diversion at 95.4% in CY2013
- Saved \$45,873 in disposal costs

**EPA R9 Annual Waste Disposition**



**EPA R9 Annual Waste Disposition**



# Technology = Mobility =



## Internal Mobility

- Laptops & docking
- Wireless access
- Multi-function Devices
  - Print, copy, scan
- Meeting spaces with supportive technologies

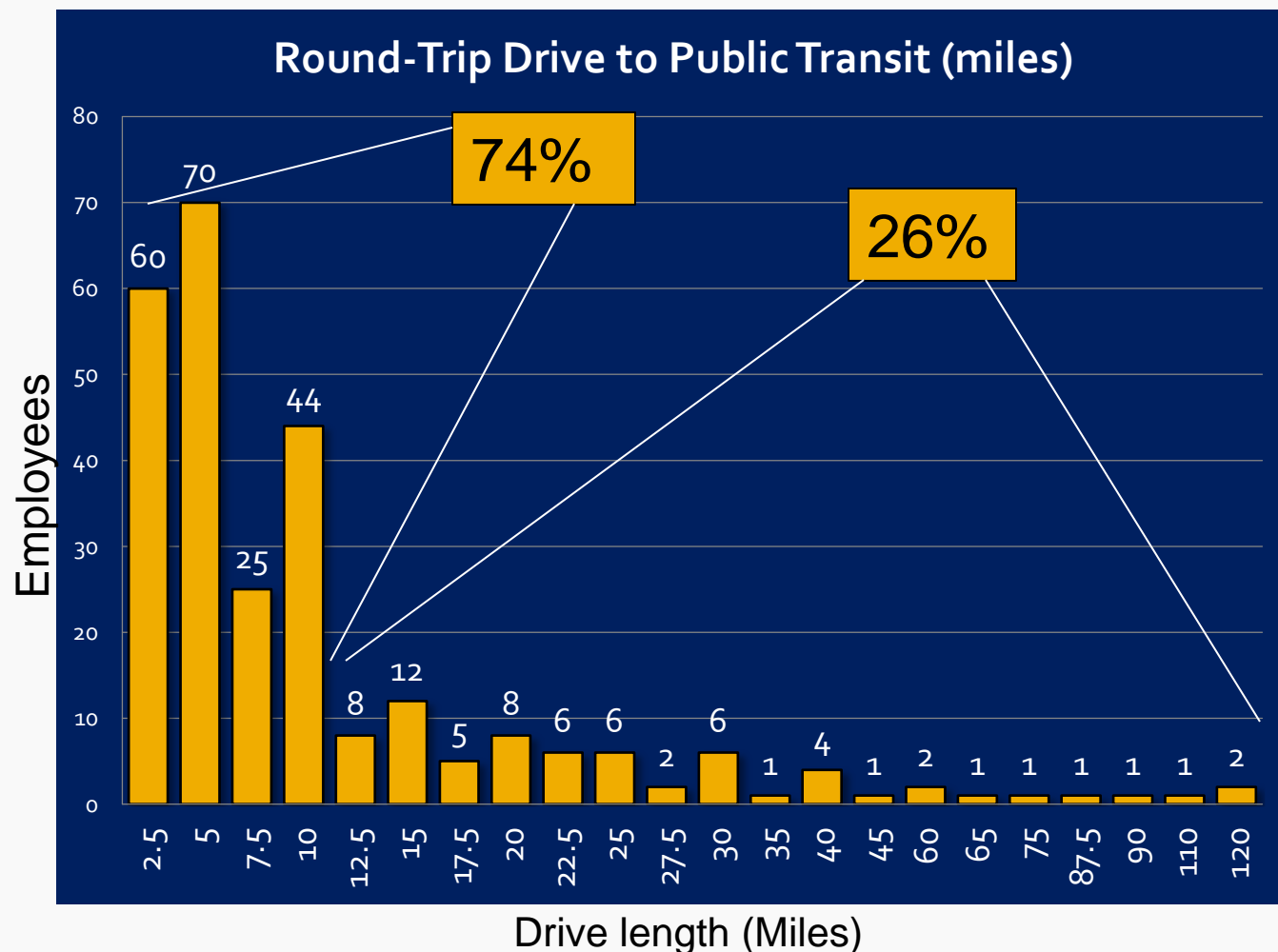


## External Mobility

- Soft tokens for all
  - Connection to Intranet
  - Access to 95% of Agency systems and databases
  - More work becomes portable
- VOIP – “find me follow me”
- Adobe Connect and laptop cameras improve interactivity



# Telework = Sustainability



## Equivalent To:

- 1.1 million car-miles per year (48% total)
- 110 tons CO<sub>2</sub>/year (58% total)

# Telework = Lease Savings



## EPA SF Now

- No more than 2 days/week telework allowed
- 2% of workforce telecommutes 2 days/week
- Occupy 64 ft<sup>2</sup> workstation that sits empty at least 2 days/week

**Space and \$ Savings  
Eliminates 70+ workstations**

## EPA SF 2015

- Up to 5 days/week of telework
- 10% of workforce telecommutes  $\geq$  3 days/week
  - These telecommuters sit at unassigned 30 ft<sup>2</sup> touchdown workstations
- Share ratio is 2 : 1
- Those who telecommute  $\leq$  2 days/week assigned 60 ft<sup>2</sup> workstation



# Employee Engagement

# Decision Making Process





# Design Concepts

# EPA R9 Design Framework



- No offices on perimeter windows
- Maximize natural lighting
- Improve floor circulation and way finding
- Create open workspace with mobile reconfigurable workstations in smaller neighborhoods
- Significantly increase type and size of meeting and collaboration space



# EPA R9 Design Framework...



- Add new amenities on each floor (pantries, water bottle filling stations)
- Remove bulk of records from floor and consolidate into Regional Records Center
- Get away from hospital white – embrace color!
- Aim for LEED CI Platinum



### Design Components

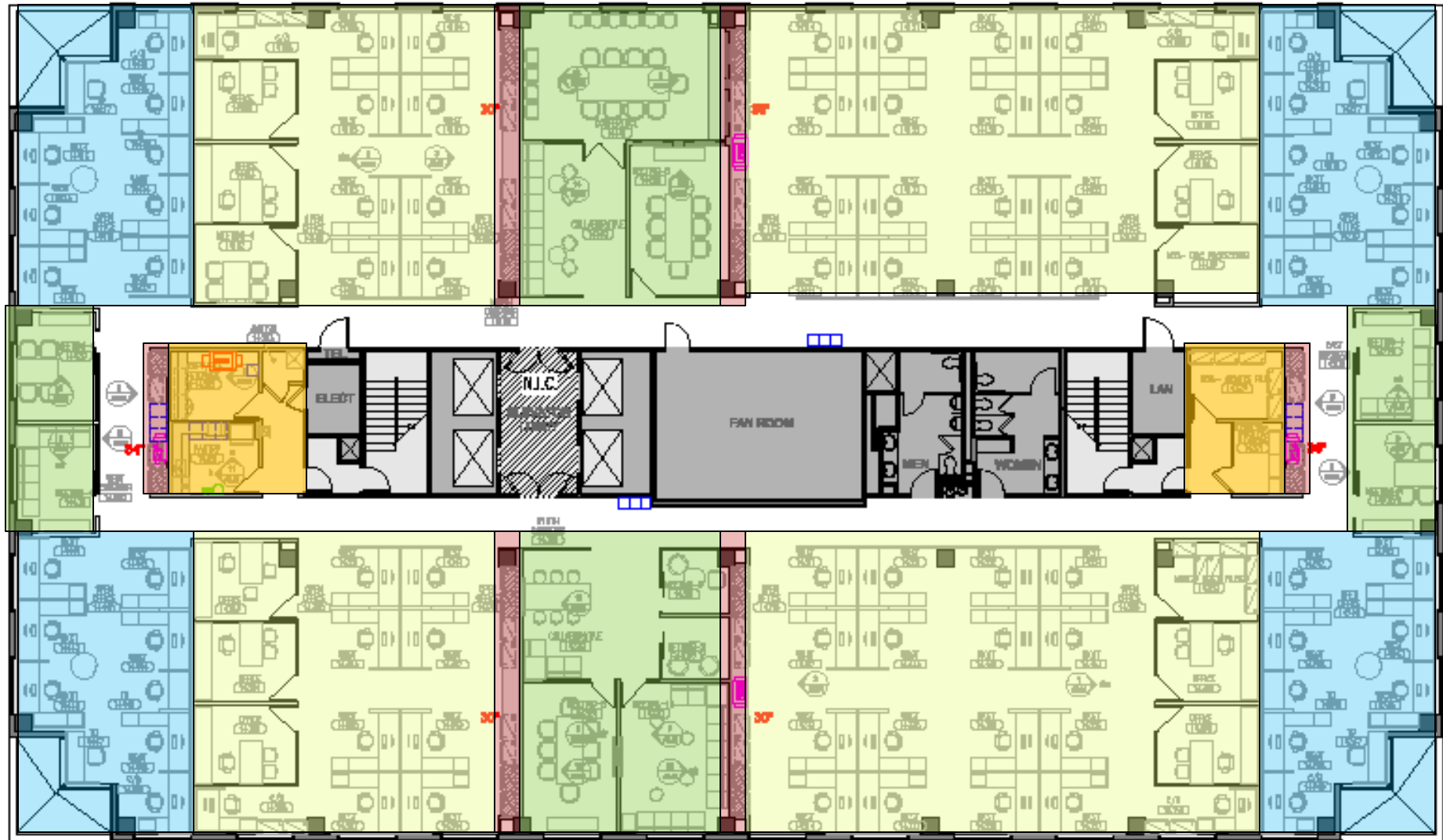
- Break up floor into 6-8 smaller neighborhoods divided by offices and meeting rooms.
- Offices moved away from windows
- All employees have access to daylight
- Most Division files moved to central Records Center

### Furniture Features

- One adjustable work surface
- 60 sf<sup>2</sup> & 30 sf<sup>2</sup> workstations, easily resized as needed
- New ergonomic desk chairs
- "Green" materials

### Floor Features

- Wireless network access throughout entire building
- Laptop & docking station at most workstations
- More conference and informal meeting rooms
- Enclosed pantry/break area on each floor
- 2-person "quiet" rooms for conference/private calls



Seating Capacity: 98

Meeting Capacity: 122



# Negotiation and Arbitration



## Management

- 42" Solid + 12" Clear Glass
- No back

## Unions

- 67" Solid Panels
- Fully Enclosed
- Sliding Door

## The Compromise

- 42" Solid + 12" Frosted Glass (67%)
- 56" Solid (33%)
- No back

# Typical Floor

View From Floor Lobby – South into Conference Rooms



# Color and Finish Board



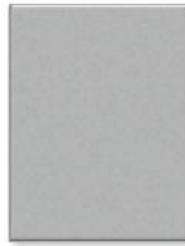
T7b, T7c - Occasional Table Top  
Knoll Laminate, Bright White 118



T7b, T7c - Base Paint for Occasional Table  
Knoll Platinum PL



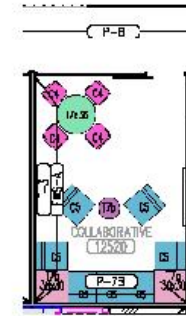
T7a - Wired Side Table Finish  
National Wood, Maple, MA040NOF



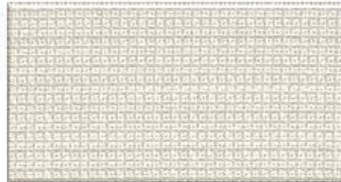
C5, T7a - Paint for Seating & Side Table Legs  
National 501 Platinum Metallic Paint



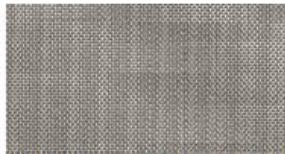
C4 - Jofco Stool, Base Finish  
Linen on Maple



C4 - Upholstery for Jofco Stool  
Maharam - Metric - 003 Fleece



C5 - Upholstery for Modular Seating (Back)  
Maharam - Metric - 013 Lava



C5 - Upholstery for Modular Seating (Seat)  
Knoll - Vibe - K1029/13 - Glam



C5 - Bench Throw Pillow  
Knoll - Eclat Weave - Scarlet



C5 - National Swift Modular Seating Armless Seat w/Back  
Base/Leg: Paint National 501 Platinum Metallic Paint

T7b - Knoll Saarinen Occasional Table  
20" h, 20" dia.  
Top finish: Knoll Laminate - Bright White 118  
Base: Knoll Paint, Platinum PL



T7c Knoll Saarinen Table 36" Dia  
Height: 15 1/2" H  
Laminate: White  
Base: Platinum  
Size: 35 3/4" dia

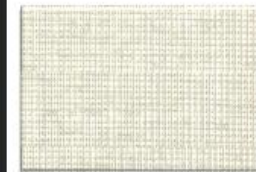


T7a - National Swift Wired Side Table  
Finish: National Wood, Maple  
Base/Leg: Paint National 501 Platinum Metallic Paint



## 12<sup>th</sup> Floor Collaborative Atypical 12520 Red Scheme

### Architectural Finishes



F-3 Fabric Wrapped Panels  
Maharam, Glint, 901380 Oyster, 002



P-7B Accent Paint Walls  
Sherwin Williams, Million Dollar Red, 2003-10



CPT-4 Carpet  
Shaw, Contract, Absorbed Tile, 5T003 - Optics



P-8: Accent Paint (core wall)  
Benjamin Moore; Pashmina AF-100



# Lessons Learned *(so far)*

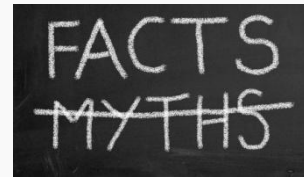


# Education and Understanding



- Offices aren't always the solution
- Dispel myths with facts

- Audio privacy
- LEED
- Acoustics



- Bring in experts to share best practices (DEGW, GSA)
- Arrange workplace site tours for key influencers
- Working collaboratively with unions takes a lot of time

# Communication and Decisions



- Change starts at the top
- Management must all speak with the same voice
- Have clear understanding of what's negotiable with unions
- Make the input and decision process clear to all
- Huge cultural changes are involved
  - Consider engaging a change management consultant
- Provide some opportunity for individual choice



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